25. Viral infection in children with bronchiectases

J. PERADZYNSKA, D. CHMIELEWSKA-SZEWCZYK, J. ZIO KOWSKI, M. KULUS, A. ZAWADZKA-KRAJEWSKA, J. LANGE AND R. KOZIOEK

Department of Pediatric Pneumonology, Allergology and Hematology, Warsaw Medical University, 01-184 Warsaw, 1 Dzialdowska st., Poland

During 1994–1998, 28 children, aged from 2 to 14 years, with bilateral or unilateral bronchiectases were hospitalized in our clinic due to acute respiratory infections. In all cases, serological and enzymatic tests, tissue culture were performed to detect viral infection. In 14 cases we obtained confirmation of parainfluenza virus type 3 infection, adenovirus infection in seven cases, and Coxackie B_3 + adenovirus in seven cases. In 23 cases administered treatment was only symptomatic – fenspiryde. In five cases (age from 2 to 3 years) bacterial culture of bronchoalveolar lavage was positive, patients were treated with antibiotics according to antibiograms.

Conclusions: In children with bronchiectases in autumn months exacerbations of the disease are usually due to viral infections. Usually, symptomatic treatment is sufficient for recovery (good response to fenspiryde). In case of bacterial superinfection there is a need of antibiotic therapy according to antibiogram. In all cases of bronchiectases, additional antiviral and antibacterial immunization is required.

26. Detection of respiratory viruses in respiratory tract infections (RTI) of newborns/infants

A. M. RABAGLIATI, L. FAMULARO AND R. PENNA*

*Central Laboratory Analysis of Pediatric "G. Gaslini" Institute, Genova, *Laboratory of Clinic "Salus", Alessandria, Italy*

We studied the possibility of detection of respiratory viruses (RV) in RTI of newborns/infants.

Antigens of Respiratory Syncytial Virus (RSV), Adeno-V(AV), Influenza A-V(IAV) and B-V(IBV) and Parainfluenza1,2,3-V(PiV) of 433 specimens of fresh respiratory secretions from patients (2m – 5y old) with pulmonary/bronchial infections were examined by microscopic IF assay. Two methods were used: a) IF on epithelial cells of specimens, b) IF after culture of specimens on MRC -5 and/or Hep -2 cells. On the whole, 1674 investigations were carried out with one or both methods: 428 *vs* RSV, 282 *vs* AV, 370 *vs* IAV/IBV and 594 *vs* PiV.

Positive specimens included 15·9% (81/510) of nasopharyngeal aspirates, 6·9% (21/305) of nasal washes, 5·3% (37/695) of brushings, 3·1% (3/97) of bronchoalveolar lavages, 3·0% (1/33) of nasal swabs and 2·9% (1/34) of other. RSV was found in 29·7% (127/428) of investigations, ADV in 2·5% (7/282), IAV/IBV in 1·1% (4/370) and PiV in 1% (6/594).

Our data show that nasopharyngeal aspirate is the most suitable specimen to detect RV in RTI.These further support that the management of RTI in newborns/infants, especially those "at risk" or with bronchiolitis, should undergo virologic investigations by IF as an helpful diagnostic tool.

27. Pharyngeal carriage of *Streptococcus pneumoniae* and *Haemophilus influenzae type b* and antibiotic resistance in HIV-positive children in Nairobi, Kenya

A. RIDDELL, M. OTSYULA, A. SEFTON AND R. BOOY

Department of Child Health, St.Bartholomew's and the Royal London Medical and Dental Schools, Queen Mary Westfield College, University of London, U.K.

Background: Antibiotic resistance in pneumococci has emerged as an increasingly difficult clinical problem. Resistance patterns vary around the world, tending to be relatively low in the U.K. and U.S.A. and high in Africa and some parts of Europe. Within a particular geographical region one may expect to see different resistance patterns and bacterial carriage depending on the extent of antibiotic exposure. Other factors such as coexistent disease, which influences immune status, may be important.
Objectives: To assess pharyngeal carriage of *Streptococcus pneumoniae* (pneumococcui) and *Haemophilus influenzae type b* (Hib) in HIV-positive children.
Methods: Pharyngeal swabs were taken from 50 HIV-positive children (age range between 9 months to 13 years) in Nairobi, Kenya in July 1999. Two sets of swabs were taken from each child. One set was cultured locally and the other at the Royal London Hospital. Information regarding symptoms and current antibiotic treatment was documented. Local ethics approval was given.